ARTICLE VI. TREE RETENTION, PROTECTION AND REPLACEMENT

(Came into existence on 12/14/89)

Sec. 8-176. Purpose This Article shall be known as the Fayette County Tree Protection Ordinance. The purpose of this Article is to protect the rural and wooded character of Fayette County through the preservation and replanting of trees when new development occurs. In wake of Fayette County's rapid development, the goal of this ordinance is to create a uniform standard related to tree coverage. Trees are a valuable asset to the rural/urban environment of Fayette County and can generate such benefits as:

A. the purification of air.

B. the moderation of the microclimate.

C. the reduction of noise and glare.

D. the conservation of energy in terms of heating and cooling.

E. the prevention of soil erosion.

F. reduced costs in terms of storm water management.

G. the minimization of flood potential.

H. improved water quality.

I. the enhancement and stabilization of property values.

J. increased aesthetics.

K. the preservation of rural character.

Sec. 8-177. Definitions.

The following definitions of terms shall apply to the Fayette County Tree Protection Ordinance.

A. Buffer. A portion of a tract which is set aside to provide a perceived or actual visual separation between the use on the tract and abutting tracts or through the use of natural vegetation or other means including replanting or the provision of supplemental plantings or other visual screening elements or noise attenuation devices.

B. Clearing. An activity which removes or disturbs the vegetative cover including trees.

C. Crown Dripline. A vertical line extending from the outer surface of a tree's branch tips to the ground.

D. Deciduous Tree. Any tree which drops its leaves at the end of the growing season.

E. Dripline Area. The total area underneath a tree which would encompass all driplines.

F. DBH. Diameter-at-breast-height is a standard measure of tree size, and is the trunk diameter measured in inches at a height of 4 ½ feet above the ground. If a tree splits into multiple trunks below 4 ½ feet, then each trunk is measured as a separate tree. A tree which splits into multiple trunks above 4 ½ feet is measured as a single tree at 4 ½ feet.

G. Evergreen. Any tree which retains its green foliage throughout the year.

H. Land-disturbing activity. Any land change which may result in soil erosion from water or wind and the movement of sediment into State water or onto lands within the State, including, but not limited to, clearing, dredging, grading, excavating, transporting and filling of land, other than federal lands.

I. Land Disturbance Permit. A permit issued to authorize clearing, dredging, grading, excavating, transporting and filling of land.

J. Landscaping. Any additions to the natural features of a plot of ground to restore construction disturbance and to make it more attractive, as by adding lawns, trees and shrubs, etc., to the natural environment.

K. Landscape Areas. An area set aside for the installation and maintenance of ornamental planting materials.

L. Natural Vegetation. Natural vegetation shall connote a generally undisturbed, maintenance-free, self-perpetuating stand of vegetation comprised of indigenous shrubs, flowers, wild grasses and trees.

M. Natural Vegetation Area. The areas within the boundaries of a given lot which is devoted to natural vegetation.

N. Protection Area. All land which falls outside the buildable area of a parcel, all areas of the parcel required to remain in open space, the critical root zone beneath a tree or clusters of trees to be retained, and/or all areas required as landscaping strips or buffers according to the provisions of the Fayette County Zoning Regulations, or conditions of zoning approval. (Ord. No. 2000-02)

O. Shrub. A woody plants or bush of relatively low height (2-6 feet), distinguished from a tree by having several stems rather than a single trunk.

P. Soil Erosion and Sediment Control Permit. A permit which authorizes the applicant to begin construction of soil erosion and sediment control measures and structures prior to beginning major clearing and grading while taking the adequate steps to limit the soil erosion, control the movement of sediment from the site and follow the best management practices as required by Fayette County Ordinances.

Q. Specimen Tree or Stand. Any tree or grouping of trees which has been determined to be of high value because of its species, size, age, or location. General criteria for the determination of specimen trees or stands are as follows:

1. Any deciduous canopy tree whose DBH equals or exceeds thirty (30) inches.

2. Any evergreen canopy tree whose DBH equals or exceeds twenty-four (24) inches.

3. Any understory tree whose DBH equals or exceeds ten (10) inches.

4. Any tree which has a significant historical value and can be documented through historical records or otherwise. (Ord. No. 2000-02)

R. Understory Tree. Any tree or woody plant which is of lesser height and spread than surrounding evergreens or deciduous trees but which still provides shade and a degree of the protection to the earth and vegetation beneath it. Examples include dogwood, cherry, red bud, sassafras, crabapple, pear, American holly, red cedar, or magnolia. (Ord. No. 2000-02)

S. Native Species. Any tree species that originated in a particular place or region. For the purposes of this ordinance, a tree species is considered to be native to Fayette County if it is listed in Native Trees of Georgia, Georgia Forestry Commission, 1996 (as amended to date) and considered indigenous to Plant Hardiness Zone II (the Piedmont Region) as shown in Landscape Plant Materials for Georgia, Bulletin 625, University of Georgia Cooperative Extension Service, 1988 (as amended to date). (Ord. No. 2000-02)

T. Tree Density Units (TDU). A unit of measurement for tree density. For existing trees designated to remain, total Existing TDU's = Sum of tree diameters (DBH) in inches. For replacement trees, total Replacement TDU's = Sum of tree diameters (measured at least six (6) inches above the ground) divided by 2. Replacement trees are worth half the TDU's of existing trees. Any other new trees planted will be given credited towards the requirement at a rate of one (1) TDU per inch of trunk diameter, similar to existing trees. (Ord. No. 2000-02)

U. Critical Root Zone (CRZ): The total area contained within a circle that surrounds the trunk of a tree. The radius of the circle, measured from the trunk of the tree, shall be equal to one and one half (1.5) feet per caliper inch of tree. For pines, the radius of the circle shall be equal to one half (0.5) feet per caliper inch of tree. (Ord. No. 2000-02)

V. Replacement Tree: Any tree planted to replace TDU's of specimen trees removed. (Ord. No. 2000-02)

Sec. 8-178 Applicability. This ordinance shall apply to any activity which requires a Land Disturbance Permit or Soil Erosion and Sediment Control Permit. Exemptions from the Fayette County Tree Protection Ordinance are:

A. property containing dead, diseased, or infested trees as determined by the Georgia Forestry Commission or a certified arborist.

B. orchards and tree nurseries in active commercial operation.

C. all property involved in a viable agricultural operation (establishment, cultivation, or harvesting of fields), livestock operation, or commercial forestry operation.

D. Reserved.

E. the construction of detached single-family and two-family residential structures or accessory structures.

F. public roads and public utilities.
(Ord. No. 2000-02)

Sec. 8-179. Procedure. For non-residential, single lot development, a Tree Protection Plan (TPP) must be submitted to the Fayette County Engineering Department for review

to ascertain conformance to the Fayette County Tree Protection Ordinance upon application for a Land Disturbance Permit or a Soil Erosion and Sediment Control Permit. The TPP may be combined with required Construction Plans or Site Plans when possible. For residential subdivision development or non-residential subdivision development , a TPP must be provided when the Preliminary Plat is submitted. It is advised that a qualified Landscape Architect, Urban Forester, or Arborist prepare the TPP. The Georgia Department of Forestry can assist in a tree survey in preparation of the TTP. The TPP must include:

A. the location of all-existing trees and specimen trees which will be retained to fulfill density requirements and their size, dripline area and species (common name). Five or more trees whose dripline combine into one tree protection area may be outlined as a group and their number, size and species listed in a summary table. If construction is limited to streets, drainage easements and utilities the TPP only needs to show all specimen trees located within 100 feet of the centerline of any right-of-way, or drainage/utility easements. (Ord. No. 2000-02)

B. the location of all new trees to be planted to fulfill density requirements and their species.

C. the boundaries of all required buffer areas.

D. the boundaries of all landscaped areas.

E. the boundaries of all proposed buildings.

F. the boundaries of all vehicle use areas.

G. the location of any specimen trees designated for removal during construction must be shown along with the trees size (DBH) and species name (common name). Written justification must be given for any specimen tree designated for removal. The County Engineer may require additional information including, but not limited to, a certified arborist's appraisal of the tree's viability and anticipated life span. A specimen tree may be removed if it is shown that at least one of the following conditions are met:

    1. The location of the tree prevents the opening of reasonable and necessary vehicular traffic lanes.

    2. The location of the tree prevents the construction of utility lines or drainage facilities which may not feasibly be relocated.

    3. The location of the tree prevents reasonable access to the property, if no alternate access exists.

    4. The tree is diseased, dead, or dying to the point that repair or restoration is not practical or the disease may be transmitted to other trees

5. There is no reasonable assurance that if the tree is saved with proper construction precautions, it will continue to live as an asset to the site. (Ord. No. 2000-02)

A TPP shall be submitted to the Fayette County Engineering Department prior to permit application so that a representative of that department can:

A. conduct a preliminary review of the TPP/Site Plan.

B. return the TPP/Site Plan either approved or with notations of changes which must be made before a Land Disturbance Permit or Soil Erosion and Sediment Control Permit can be issued.

The Engineering Department will follow this review by returning the TPP with signature and comments denoting approval or disapproval with required change, within fifteen (15) working days of the submission of the TPP.
(Ord. No. 2000-02)

COMPLIANCE

It is the responsibility of the Fayette County Engineering Department to review the TPP to ascertain compliance with the provisions of this Section before a Land Disturbance or Soil Erosion and Sediment Control Permit will be issued. It is the responsibility of the Fayette County Engineering Department to conduct a final inspection for compliance with this section before a Certificate of Occupancy will be granted. The Fayette County Engineer or his representatives have the authority to revoke, suspend, or void any Land Disturbance Permit or Soil Erosion and Sediment Control Permit, stop all work on site or any portion thereof, or withhold a Certificate of Occupancy when there has been a violation of any of the provisions of this Section.

APPEAL PROCEDURE

Any applicant for a Land Disturbance Permit, a Soil Erosion and Sediment Control Permit, or Certificate of Occupancy who is aggrieved by any decision of the Fayette County Engineering Department relating to the application of this Ordinance shall have the right to appeal as provided under Article IX of the Fayette County Zoning Ordinance.

Sec. 8-180. Tree Density Requirements. Property subject to this Article that is greater than or equal to 3.0 acres shall have or exceed an average existing tree density of one-hundred (100) TDU's per acre. Property subject to this Article that is less than 3.0 acres shall have or exceed an average existing tree density of fifty (50) TDU's per acre. Existing trees, which will be retained, will be given credit toward this requirement at the rate of one (1) TDU per inch DBH (diameter-at-breast-height). Replacement trees will be given credit toward this requirement using a trunk measurement which is no less than six (6) inches from the ground at the rate of 1 TDU per two (2) inches of trunk diameter. Replacement trees are worth half as many TDU's as existing trees. Any other new trees planted will be given credited towards the requirement at a rate of one (1) TDU per inch of trunk diameter, similar existing trees. At least fifty percent of the TDU's per acre must be located outside of any natural, undisturbed or watershed protection buffers required by Articles V and VII of these development regulations. Residential and non-residential subdivision development projects are exempt from Tree Density Requirements.
(Ord. No. 2000-02)

Sec. 8-181. Tree Protection Requirements. Certain tree protection measures will be mandatory to assure the survival of existing trees and stands of trees during and after the construction process. It is more feasible to save stands of trees than it is to save single trees scattered throughout the site. Stands of trees have been shown to have higher survival rate after the grading and construction process as opposed to single stand-alone trees. A tree protection area shall be maintained around all trees and stands of trees to be retained. The tree protection area shall be the same as the critical root zone (CRZ), as defined in this ordinance. The tree protection area shall be marked with standard tree protection fencing (orange) or stakes, continuous engineering tape and "Tree Protection Area" signs. No land disturbance, construction processes, or storage of equipment or materials will be allowed to take place within the tree protection area. The construction and grading process can cause damages such as:

A. direct physical root damage

B. indirect root damage

C. trunk and crown damage

Direct physical root damage occurs during site clearing and grading and can cause transport or feeder roots to be cut, torn, or removed. Indirect root damage can occur from grade changes, storage of fill material, soil compaction and soil chemical changes. Trunk and crown damage commonly occurs through direct contact with land clearing machinery or from the falling of adjacent trees.
(Ord. No. 2000-02)

Sec. 8-182. Guidelines for Tree Protection. Listed below are guidelines for tree protection to be followed during the grading and construction process.

A. All individual stand-alone trees to be retained on the site must be marked with orange engineering tape tied around the trunk of the tree at a height of five (5) feet above the ground.

B. The tree protection area (CRZ) of stand-alone trees and stands of trees will be marked with standard tree protection fencing (orange) or four (4) foot silt fence stakes placed at an interval of every ten (10) feet and orange engineering tape strung from the top of stake to stake. At least two (2) "Tree Protection Area" signs shall be posted at each individual tree protection area. No construction activities will be allowed within the tree protection area. (Ord. No. 2000-02)

C. During subdivision street construction, land disturbance allowed by a development permit shall be limited to areas needed for street right-of-way, drainage easements and utilities. All other areas will be considered a tree protection area. If at all possible utilities will run along streets. If utilities must run through the tree protection area and the running of those utilities will encroach into the critical root zone (CRZ) of any trees to be saved, the utility must be tunneled at a depth of twenty-four (24) inches. Reasonable efforts shall be made to save as many trees as possible. (Ord. No. 2000-02)

D. Generally the tree protection area should be maintained as a natural vegetation area or at least an area landscaped with shrubs or understory trees when possible and mulched with either pine straw or pine bark. This is not mandatory. The seeding or sodding of grass in the tree protection area is undesirable. Trees and grass compete for moisture and nutrients in the soil. Mulching shall be limited to a maximum depth of four (4) inches and mulch shall be dispersed by methods that do not involve heavy machinery.(Ord. No. 2000-02)

E. In most cases overstory trees should be removed and replaced with an understory tree if they will be within twenty (20) feet of any structure. This is due to the extensive land disturbance which occurs within and around trees within twenty (20) feet of a structure are to be saved special attention should be given to the protection to reduce potential damage to the protection of the critical root zone and the pruning of the tree situations such as this the Georgia Forestry Commission or a certified arborist should be contacted for technical assistance. Overstory trees within twenty (20) feet of a structure can cause problems such as:

1. the clogging of gutters from falling leaves and debris.

2. the cracking of foundations from roots.

3. leaks caused by the rubbing of limbs on roofs.

4. costly expenditures in terms of the removal of trees if damaged by the construction process.

5. excessive mildew.
(Ord. No. 2000-02)

F. In most cases overstory trees within ten (10) feet of a paved driveway should be removed and replaced with an understory tree or the driveway should be moved to another location unless special attention is given to the protection of the critical root zone. This is not mandatory. In special situations such as this the Georgia Forestry Commission or a certified arborist should be contacted for technical assistance. Overstory trees within ten (10) feet of a driveway can cause problems such as:

1. the pavement of a driveway suffocating the tree or trees by causing a decrease in soil oxygen levels.

2. the roots of specimen trees cracking driveways.
(Ord. No. 2000-02)

G. When possible all underground utilities will be run along roadways, driveways, or sidewalks. Utilities shall not be run through a tree protection area unless they are tunneled at a depth of twenty-four (24) inches in a manner which will damage as little of the root system as possible.

H. If it is determined that irreparable damage has occurred to a tree or trees within a designated tree protecting area, as determined by the Fayette County Engineer, the Georgia Forestry Commission, or a certified arborist, then it shall be the responsibility of the developer/builder to remove and replace the tree or trees and guarantee survival after the issuance of the Certificate of Occupancy. In the event that the requirements of this Article cannot be met at the time that a Certificate of Occupancy could be otherwise granted then refer to "Buffer and Landscape Areas," Sections 8-163 Performance Surety and 8-164 General Maintenance, in these Development Regulations. (Ord. No. 2000-02)

Sec. 8-183. Guidelines for Tree Replacement. In some cases tree replacement will be necessary to fulfill the Tree Density Requirement. Although the preservation of existing trees is important it is also important to replenish the rural/urban forest as development occurs with new trees to ensure the presence of trees for generations to come. Listed below are guidelines for tree replacement to be followed after the construction process.

A. All trees selected for replacement must be quality specimens free of disease, injury, or infestation, and must be ecologically compatible with the specifically intended growing area (see Section 8-184 (A), (B), and (C)) and planted in accordance with standards established by the International Society of Arboriculture.

B. All trees planted to fulfill the Tree Density Requirements must be in place before a Certificate of Occupancy may be granted. In the event that the requirements of this Article cannot be met at the time a Certificate of Occupancy could be otherwise granted then refer to "Buffer and Landscape Areas," Section 8-163 Performance Surety, in these Development Regulations. (Ord. No. 2000-02)

C. All trees planted under the requirements of this Article which do not survive for twenty four (24) months after issuance of a Certificate of Occupancy will be replaced as a condition of occupancy. Trees shall be bonded via a maintenance agreement and a certified check in the amount of one hundred percent (100%) of their replacement cost. Bonds will be released after the twenty-four (24) month period has passed, and the health of the trees have been certified and accepted by the County. Refer to "Buffer and Landscape Areas," Section 8-164 General Maintenance, in these Development Regulations. (Ord. No. 2000-02)

D. Trees should not be planted within twenty (20) feet of any structure or within ten (10) feet of a paved driveway unless they are understory trees. (Ord. No. 2000-02)

E. A fifty (50) per cent mix of overstory and understory trees shall be maintained. See Sec. 8-184 for a listing of desirable and undesirable overstory and understory trees. (Ord. No. 2000-02)

F. Evergreen trees planted should be planted closely together on the northwestern and northern perimeters of buildings to buffer structures from northern winter winds. This is not mandatory. (Source: National Arbor Day Foundation) (Ord. No. 2000-02)

G. Deciduous (broadleaf) specimen trees should be planted along the southwestern and eastern perimeters of buildings as shade structures in the summer and allow sunlight to pass through in the winter. This is not mandatory, (Source: Nation Arbor Day Foundation) (Ord. No. 2000-02)

H. Where minimum tree density cannot be met due to natural site constraints, the developer/builder shall provide remaining balance of required trees for planting on county property.

I. At least seventy-five (75) percent of the trees planted must be native trees as indicated in the list of trees suitable for planting. (Ord. No. 2000-02)

J. At least 75% of all trees planted shall be at least two (2) inches in diameter as measured at least six (6) inches above the ground. (Ord. No. 2000-02)

K. Any trees planted should use a four species mixture of different plants, with at least three being deciduous hardwoods. (Ord. No. 2000-02)

Sec. 8-184. Trees Suitable and Unsuitable for Planting.

A. Overstory Trees Suitable for planting (*denotes Native Species):

1. American Beech (deciduous)*
2. Blackgum (Black Tupelo) (deciduous)*
3. Florida Maple (deciduous)
4. Shagbark Hickory (deciduous)*
5. Loblolly Pine (evergreen)*
6. London Plane Tree (deciduous)
7. Northern Redoak (deciduous)*
8. Pecan (deciduous)
9. Post Oak (deciduous)*
10. River Birch (deciduous)*
11. Black Oak (deciduous)*
12. Southern Magnolia (evergreen)*
13. Southern Redoak (deciduous)*
14. Sweetgum (deciduous)*
15. Water Oak (deciduous)*
16. White Oak (deciduous)*
17. Willow Oak (deciduous)*
18. Yellow-poplar (deciduous)*
19. Mokernut Hickory (deciduous)*
20. Shortleaf Pine (evergreen)*
21. Pignut Hickory (deciduous)

22. Chestnut Oak (deciduous)

23. Green Ash (deciduous)

24. White Ash (deciduous)

25. Red Mulberry (deciduous)

26. Hackberry (deciduous)

27. Black Locust (deciduous)

28. Sycamore (deciduous)

29. Red Cedar (evergreen)

30. Winged Elm (deciduous)

31. Eastern Cottonwood (deciduous)

32. Persimmon (deciduous)

B. Understory Trees Suitable for planting (*denotes Native Species):

1. American Holly (evergreen)*
2. Carolina Basswood (deciduous)
3. Black Cherry (deciduous)*
4. American Plum (deciduous)*
5. Southern Crabapple (deciduous)*
6. Dogwood (deciduous)*
7. Eastern Redbud (deciduous)*
8. Eastern Hophornbeam (deciduous)*
9. American Hornbeam (Blue Beech) (deciduous)*
10. Red Maple (deciduous)*
10. Sassafras (deciduous)*

12. Sourwood (deciduous)*

13. Virginia Pine (evergreen)*

11. Georgia Oak (deciduous)*

15. Elder Berry (deciduous)

16. Sparkleberry (deciduous)

C. Unsuitable Trees for Planting:

1. Eastern Hemlock
2. Eastern White Pine
3. Lombardy Poplar
4. Mimosa
5. Norway Pine
6. Paper Birch
7. Silver Maple
8. Spruce
9. Box Elder
10. Willow
12. Royal Paulownia
13. Bradford Pear
14. Tree of Heaven

Trees not listed on the above list of approved trees may be substituted from Dirr's Manual if approved by the County Engineer.
(Ord. No. 2000-02)